WHAT IS CLAIMED:

1. An interface, comprising:

a data path configured to:

receive packet data in a stream, and

temporarily store the packet data;

a scheduler configured to:

partition the packet data into bursts,

determine whether a size of a current one of the bursts is less than a size of a maximum burst associated with the stream, and

schedule one or more additional bursts in the stream when the current burst size is less than the maximum burst size; and

transmitter logic configured to transmit the current burst and the one or more additional bursts.

2. The interface of claim 1, wherein the data path includes a plurality of data paths corresponding to a plurality of streams and the scheduler includes a plurality of schedulers corresponding to the data paths.

3. The interface of claim 2, further comprising:

merge logic configured to:

receive bursts from each of the schedulers, and

multiplex the bursts to create multiplexed streams.

4. The interface of claim 3, wherein the transmitter logic is configured to transmit the multiplexed streams.

5. The interface of claim 1, wherein the scheduler is further configured to determine a size of an additional burst when the current burst size is less than the maximum burst size.

6. The interface of claim 5, wherein when determining a size of an additional burst, the scheduler is configured to:

determine Y from:

$Y = (\textit{maximum burst size} - \textit{current burst size})\text{div}16$, and

if $16 * Y > NPS$, then

add one extra burst to the stream of a size equal to NPS,

else

add one extra burst to the stream of a size equal to $16 * Y$,

where NPS is a size of next packet data in the stream.

7. The interface of claim 5, wherein when determining a size of an additional burst, the scheduler is configured to:

determine Y from:

$Y = (\textit{maximum burst size} - (\textit{current burst size} + x))\text{div}16$,

if $16 * Y > NPS$, then

add one extra burst to the stream of a size equal to NPS,

else,

add one extra burst to the stream of a size equal to 16 * *Y*, and

increment *x* by *x* + *current burst size*,

where *x* is a variable initially set to zero and *NPS* is a size of next packet data in the stream.

8. The interface of claim 1, wherein the scheduler includes:

a buffer configured to temporarily store the packet data, and

a decision maker configured to determine whether to schedule the one or more additional bursts.

9. The interface of claim 8, wherein the decision maker includes:

a counter configured to generate a count value based on a number of clock cycles from a start of a packet to an end of the packet.

10. The interface of claim 9, wherein the decision maker is configured to use the count value to identify a number of additional bursts.

11. The interface of claim 9, wherein the counter is configured to increment to a maximum count value and return to a predetermined value.

12. The interface of claim 9, wherein the scheduler is further configured to determine a size of an additional burst based on the count value when the current burst size is less than the maximum burst size.

13. The interface of claim 12, wherein when determining a size of an additional burst, the scheduler is configured to use a function:

((*maximum burst size*/16) - *count value*) * 16.

14. A system for balancing bandwidth used by a data stream, comprising:

means for receiving data in the data stream;

means for partitioning the data into bursts;

means for determining whether a size of a current one of the bursts is less than a size of a maximum burst associated with the data stream;

means for scheduling one or more additional bursts in the data stream when the current burst size is less than the maximum burst size; and

means for transmitting the current burst and the one or more additional bursts.

15. A method for balancing bandwidth used by a packet stream, comprising:

receiving packet data in the packet stream;

partitioning the packet data into bursts;

identifying whether a size of a current one of the bursts is less than a size of a maximum burst associated with the packet stream;

scheduling an additional burst in the packet stream when the current burst size is less than the maximum burst size; and

transmitting the current burst and the additional burst to balance bandwidth used by the packet stream.

16. The method of claim 15, wherein the packet stream includes a plurality of packet streams and the method is performed on a per-packet stream basis.

17. The method of claim 16, further comprising:

multiplexing bursts from different ones of the packet streams to create multiplexed packet streams.

18. The method of claim 15, further comprising:

determining a size of the additional burst to schedule when the current burst size is less than the maximum burst size.

19. The method of claim 18, wherein the determining a size of the additional burst includes:

determining Y from:

$Y = (\textit{maximum burst size} - \textit{current burst size})\text{div}16$, and

if $16 * Y > NPS$, then

adding one extra burst to the packet stream of a size equal to *NPS*,

else

adding one extra burst to the packet stream of size equal to 16 * *Y*,

where *NPS* is a size of next packet data in the packet stream.

20. The method of claim 18, wherein the determining a size of the additional burst includes:

determining *Y* from:

$$Y = (\textit{maximum burst size} - (\textit{current burst size} + x))\text{div}16,$$

if 16 * *Y* > *NPS*, then

adding one extra burst to the packet stream of a size equal to *NPS*,

else,

adding one extra burst to the packet stream of a size equal to 16 * *Y*, and

incrementing *x* by $x + \textit{current burst size}$,

where *x* is a variable initially set to zero and *NPS* is a size of next packet data in the packet stream.

21. The method of claim 15, wherein the scheduling an additional burst includes:

generating a count value based on a number of clock cycles from a start of packet data to an end of the packet data.

22. The method of claim 21, wherein the count value is generated using a counter that increments to a maximum count value and returns to a predetermined value.

23. The method of claim 21, wherein the scheduling an additional burst further includes:

determining a size of the additional burst to schedule based on the count value.

24. The method of claim 23, wherein the determining a size of the additional burst includes:

using a function:

((*maximum burst size*/16) - *count value*) * 16

to identify the size of the additional burst.

25. A network device, comprising:

a switch fabric; and

a plurality of forwarding engines coupled to the switch fabric, each of the forwarding engines being configured to:

receive data in a plurality of data streams,

partition the data into bursts,

determine whether a size of a current one of the bursts associated with one of the data streams is less than a size of a maximum burst associated with the one data stream,

schedule an additional burst in the one data stream when the current burst size is less than the maximum burst size, and

transmit the current burst and the additional burst in the one data stream.

26. The network device of claim 25, wherein each of the forwarding engines is further configured to:

multiplex bursts from each of the data streams to create multiplexed data streams.

27. The network device of claim 25, wherein each of the forwarding engines is further configured to determine a size of the additional burst to schedule when the current burst size is less than the maximum burst size by:

determining Y from:

$Y = (\textit{maximum burst size} - \textit{current burst size})\text{div}16$, and

if $16 * Y > NPS$, then

adding one extra burst to the one data stream of a size equal to *NPS*,

else

adding one extra burst to the one data stream of a size equal to $16 * Y$,

where *NPS* is a size of next data in the one data stream.

28. The network device of claim 25, wherein each of the forwarding engines is further configured to determine a size of the additional burst to schedule when the current burst size is less than the maximum burst size by:

determining Y from:

$Y = (\textit{maximum burst size} - (\textit{current burst size} + x))\text{div}16$,

if $16 * Y > NPS$, then

adding one extra burst to the one data stream of a size equal to *NPS*,

else,

adding one extra burst to the one data stream of a size equal to 16 * *Y*, and

incrementing *x* by *x* + *current burst size*,

where *x* is a variable initially set to zero and *NPS* is a size of next data in the one data stream.

29. The network device of claim 25, wherein each of the forwarding engines is further configured to:

generate a count value based on a number of clock cycles from a start of data to an end of the data.

30. The network device of claim 29, wherein each of the forwarding engines is further configured to:

determine a size of the additional burst to schedule when the current burst size is less than the maximum burst size using:

((*maximum burst size*/16) - *count value*) * 16.

31. A method for balancing bandwidth used by a data stream, comprising:

receiving data in the data stream;

partitioning the data into bursts;

identifying whether a size of a current one of the bursts is less than a size of a maximum burst associated with the data stream;

scheduling an additional burst in the data stream when the current burst size is less than the maximum burst size; and

transmitting the current burst and the additional burst to balance bandwidth used by the data stream.